

2.2.1 North 27th Street

Intersection delay studies were conducted at five (5) signalized intersections along this corridor. Table 16 summarizes the results of both the “before” and “after” intersection delay studies. Delay and LOS are reported for the overall intersection as well as for each individual approach for each of the three peak time periods. Delay study computations for each intersection are provided in Appendix B.

In general, most of the intersections along the corridor showed an increase in overall intersection delay from the “before” study to the “after” study during the AM Peak. During the Midday, both decreases and increases in average delay were observed. Overall intersection delay decreased at most intersections during the PM Peak time period.

Of the five (5) intersections studied, the intersection of 27th Street/Vine Street experienced a decrease in overall intersection delay during all three time periods between the “before” and “after” delay studies, with a corresponding increase in LOS during the Midday and PM Peak time periods, according to the 2000 HCM criteria. Both the intersection at Holdrege Street and the intersection at Cornhusker Highway decrease from LOS ‘C’ to LOS ‘D’ during the AM Peak. The decrease in LOS was partly due to an increase in traffic volume being serviced by the intersection during the “after” studies, resulting in a higher number of stopped vehicles recorded during the study time period.

The intersection of 27th Street/Superior Street experienced a significant increase in average stopped delay during both the AM Peak and Midday time periods, resulting in a decrease in LOS from ‘C’ to ‘D’. Again, the decrease in LOS was, in part, due to an increase in traffic volume being serviced by the intersection during the “after” studies, especially for both the northbound and southbound approaches, resulting in a higher number of stopped vehicles recorded during the study time period.

Dual intersection delay studies were conducted at the intersection of 27th Street/Holdrege Street for both the “before” and “after” scenarios to determine the variability in delay resulting from collecting data on different days. Comparison of the dual delay studies conducted showed very little variability in average stopped delay between the two days on which the studies were conducted. The greatest variability of 4.6 sec/veh was observed for the “after” study during the PM Peak time period. Otherwise, variability remained less than 2.0 sec/veh for all other time periods for both the “before” and “after” studies.